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ABSTRACT

This document is the first three-year environmental education plan for New South Wales (NSW), Australia. The plan is guided by a vision to achieve effective and integrated environmental education which builds the capacity of the people of NSW to be informed and active participants in moving society towards sustainability. The plan's priority action areas include: (1) Making information and programs easily accessible through web-based links for education programs, resources, and contacts; (2) improving the delivery of environmental education in schools through the sustainable school program; (3) helping industry improve the environment through the Cleaner Production Industry Partnerships Program; (4) combating salinity through regional salinity education; (5) energizing the community to act responsibly through sustained community education campaigns; and (6) increasing understanding of conservation. The framework for the plan is drawn from seven key outcomes: (1) improved integration of environmental education with other tools and strategies used by organizations; (2) enhanced cross-sectional coordination of environmental education programs; (3) an expansion of partnership and network activities between environmental education providers; (4) improved access for all people in NSW to high quality environmental education programs; (5) enhanced training, professional development, and other support for those developing and delivering environmental education; (6) increased research and evaluation of effective environmental education; and (7) increased active and informed participation by NSW people in creating a sustainable future. This plan includes performance indicators for each strategy. Performance is tracked and reported on progress. (KHR)

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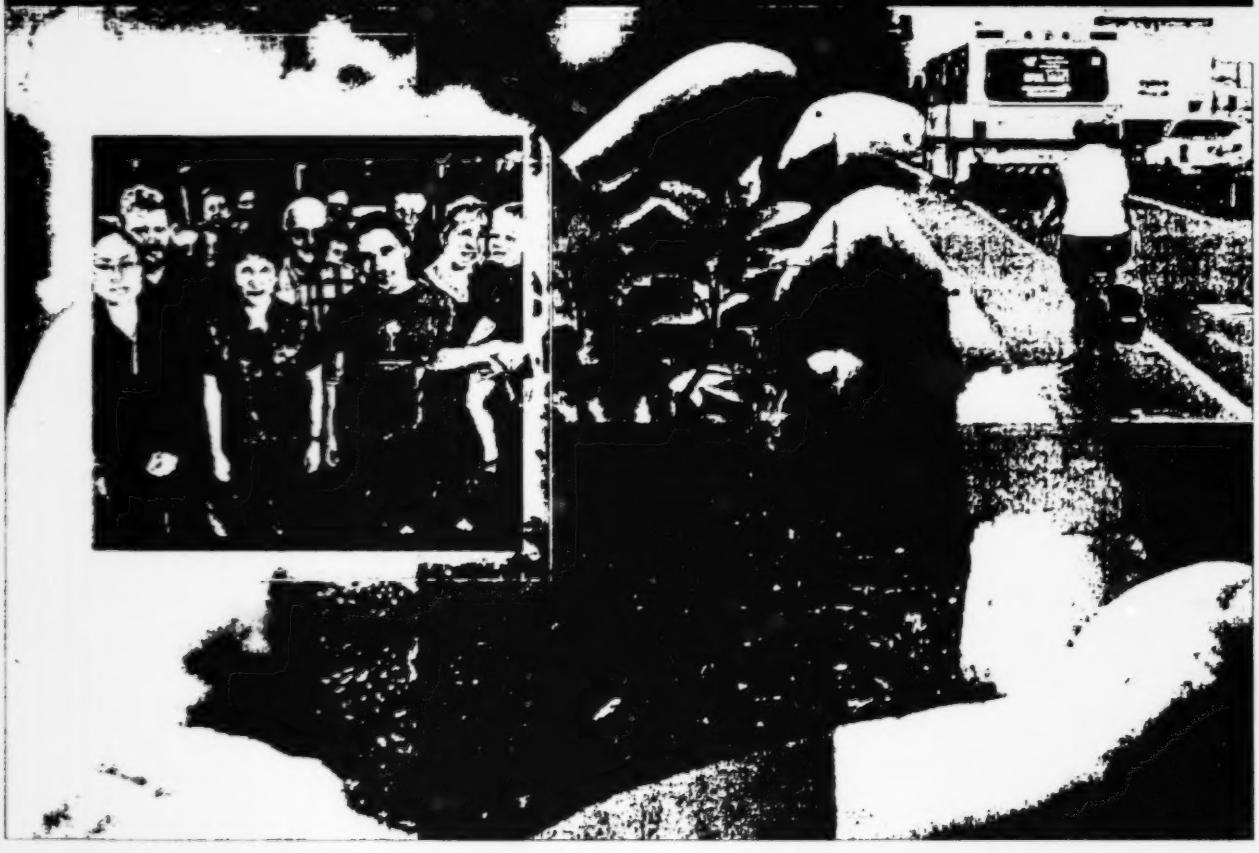
Learning for Sustainability

NSW Environmental Education Plan 2002–05



sustainable lifestyles ▪ communication ▪ participation ▪ healthy ecosystems

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Developed by government, community organisations, industry and education stakeholders

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New South Wales Government

Learning for Sustainability

NSW Environmental Education Plan 2002–05

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Inset photo on cover: Encouraging the use of public transport to improve air quality (photo courtesy of Roads and Traffic Authority)

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Premier of New South Wales
Australia

Foreword by Premier Bob Carr

We will care for our environment more if we understand it better. Environmental education gives us much-needed information to make informed choices and learn how our actions can make a difference.

In fact, research shows people consistently rate education as the single most important thing the government can do to protect our environment.

Learning for Sustainability – our State's first three-year environmental education plan – is based on these simple principles.

Our plan emphasises ways of dealing with the underlying causes of environmental problems – that is, learning how we can live sustainably.

Across New South Wales, many community and industry groups, state and local government agencies, education institutions and individuals are putting a great deal of effort into developing environmental education programs.

They have my full support and encouragement.

Learning for Sustainability aims to build on this splendid work, fostering links between these groups so that programs reflect our common priorities as a society and are accessible to everyone.

Learning for Sustainability will mean greater opportunities for people to participate in quality environmental education programs, whether they're at work, home, school, TAFE or university, or simply enjoying life outdoors.

I urge everyone to discover how *Learning for Sustainability* is relevant to your activities and how you or your organisation can contribute to its implementation.

Every step, no matter how small, counts towards a sustainable future for every Australian.

Bob Carr
Premier

This plan is aimed at achieving

effective and integrated environmental education which builds the capacity of the people of NSW to be informed and active participants in moving society towards sustainability

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GLOSSARY

Action: a broad statement of what stakeholders and agencies will do to obtain an outcome.

Biodiversity: the variety of all life forms: the different plants, animals and micro-organisms, the genes they contain and the ecosystems of which they are a part.

Capacity-building: programs or initiatives aimed at enhancing the effectiveness of individuals, organisations and systems to achieve or define outcomes, by strengthening their knowledge base, competence, resources, networks, infrastructure and other forms of support.

Community: includes all spheres of government, industry, special interest groups and the general public. The term is also used in a more specific sense to refer to those affected by particular issues under consideration or who are interested in some way.

Ecologically sustainable development (ESD): development which aims to meet the needs of Australians today, while conserving our ecosystems for the benefit of future generations of all species. This term has been used throughout this document to refer to the path or framework for achieving sustainability.

Education: any process or activity that engages people in learning by sharing and developing knowledge, skills and attitudes. Education can occur through formal or non-formal processes. Non-formal education includes learning through a range of activities such as community participation, information and communication (including mass media), entertainment and recreation, extension and awareness-raising programs, experiential learning programs, skills training, on-the-job training and development, and short courses and personal development activities. These may be delivered by government agencies, non-government organisations and industry at a community and individual level. Formal education can occur through the curriculums of pre-schools, primary and secondary schools, vocational education and training institutions, and universities (see Appendix II and III).

Environment: the aggregate of all conditions that influence the life of a species, including natural, social, cultural, built and spatial elements.

Environmental education: any process or activity that assists the development of awareness, knowledge, skills and attitudes leading to environmentally responsible practices and behaviour. The term 'education for sustainability' refers to holistic and integrated environmental education that leads to the development of a sustainable society.

Environmental citizenship: a process whereby people exercise rights and accept responsibilities for active participation as members of communities, nations and the planet to achieve sustainability.

Sustainability: the goal to be achieved through ecologically sustainable development. It refers to the ability to continue an activity into the future or maintain a state or condition undiminished (or enhanced) over time. Sustainability involves integrated ecological, personal and social (including economic) goals and implies changes in behaviour and practices by individuals and organisations.

Outcome: an intended result of implementation of the Council's plan.

Performance indicator: a measurable item or tool used to monitor and report changes. The Council will use indicators to assess the extent to which the Outcomes are being achieved.

Strategy: a broad statement of the methods employed for achieving an Outcome.

ABBREVIATIONS AND ACRONYMS

ARP	Annual reporting process
CANRI	Community Access to Natural Resource Information database
CEE	Council on Environmental Education
DET	Department of Education and Training
DLWC	Department of Land and Water Conservation
DPWS	Department of Public Works and Services
EECN	Environmental Education Coordinating Network
EPA	Environment Protection Authority
ESD	Ecologically sustainable development
NEEC	National Environmental Education Council
NEEN	National Environment Education Network
NGOs	Non-government organisations
NPWS	National Parks and Wildlife Service
RIRDC	Rural Industry Research and Development Corporation
RTA	Roads and Traffic Authority
SEDA	Sustainable Energy Development Authority
TAFE	Tertiary and Further Education
TI	Triennial inventory
VET	Vocational education and training

SUMMARY

Learning for Sustainability is the first three-year environmental education plan for NSW developed by the NSW Council on Environmental Education. It strives to build the capacity of the whole community to be even more involved in making environmental improvements.

The plan is guided by a **vision** to achieve:

> *Effective and integrated environmental education which builds the capacity of the people of NSW to be informed and active participants in moving society towards sustainability*

The plan's **priority action areas** include:

- making information and programs easily accessible through web based links for government and non-government environmental education programs, resources and contacts (Action 28, p. 34)
- improving the delivery of environmental education in schools through the *Sustainable Schools Program*: From 2002 all Government schools will implement a new environmental education policy and develop school environmental management plans, with provision for a Sustainable Schools accreditation program (Action 37, p. 36).
- helping industry improve the environment through the *Cleaner Production Industry Partnerships Program*: Funding of $5m over three years with matching industry contributions will encourage industry to improve its environmental and financial performance through cleaner production approaches (Action 9.13, p. 26).
- combating salinity through *regional salinity education*: This will include a comprehensive $20m package of education measures including communication, information, vocational education and training, experiential learning and homestudy, and extension (Action 9.1, p. 21).
- energising the community to act responsibly through *sustained community education campaigns* including: *Our Environment – It's a Living Thing*, a $17.5m community education campaign over 3½ years about everyday things we can do at home, work and play to live sustainably (Action 9.20, p. 29); ensuring that new Government environmental initiatives consider building in roles for the community (Actions 16 and 23, pp. 31–32); and support for regional communities through *planFIRST* which will result in environmental plans better suited to local needs (Action 9.19, pp. 28– 29).
- increasing understanding of conservation by encouraging *Aboriginal people to 'tell their stories'* and share Aboriginal culture and knowledge of biodiversity via Discovery programs in and beyond NSW National Parks (Action 9.18, p. 28).

The plan's vision is supported by six **principles** (p. 9). In essence these principles build a key role for education (when integrated with other environmental management tools) to assist the people of NSW to protect the environment and move towards a more sustainable society. They promote lifelong, quality education, which results in social change through the initiatives of individuals and organisations.

The Council comprehensively **reviewed** environmental education in NSW and compiled an **inventory** of programs in developing the plan. This included identifying priorities for sustainability as well as key environmental education needs (pp. 9–13).

The framework for the plan is drawn from seven key **Outcomes** which the Government will pursue. These are:

1. Improved integration of environmental education with other tools and strategies used by organisations to promote ESD

2. Enhanced cross-sectoral coordination of environmental education programs

3. An expansion of partnership and network activities between environmental education providers which enhance the quality and reach of their programs

4. Improved access of all people in NSW to high quality environmental education programs

5. Enhanced training, professional development and other support for those developing and delivering environmental education

6. Increased research and evaluation of effective environmental education

7. Increased active and informed participation by NSW people in creating a sustainable future.

The Government expects that achieving the first six Outcomes will lay the foundations for achieving Outcome 7. These Outcomes will be realised through the range of related **Strategies and Actions** described in Section 3. Delivering the Actions will be the responsibility of environmental education providers from government, industry, peak non-government organisations, the formal education sector and the community, with all having different and complementary roles and responsibilities in implementing the plan.

An important part of the plan is tracking performance and reporting on progress (pp. 44–45). The plan includes **performance indicators** for each Strategy. The three key mechanisms for **reporting** on performance indicators are:

- annual reports to the Council from State Government agencies
- an annual report to the Government from the Council
- a triennial report to the Government based on a review of the plan by Council with a summary of this report included in the NSW State of the Environment report.

YOUR ROLE IN THE ENVIRONMENTAL EDUCATION PLAN

Who should participate?

As all individuals and organisations impact on the sustainability of our environment, we can all be active participants in achieving the vision of the Environmental Education Plan 2002–05. As individuals we can make personal lifestyle choices which contribute to sustainability, while organisations are able to make corporate decisions about their operations and training of staff which ensure more effective use of natural resources. Educational institutions can engage students in learning about how their personal and professional activities are able to contribute to sustainability.

The plan is particularly relevant to:

- those responsible for corporate policy, as well as the management of programs and operations which have an impact on the environment
- organisations who deliver environmental and natural resources programs, including State agencies and peak non-government organisations, industry and community groups. In many cases the roles of State organisations in this area are closely tied to NSW environmental and natural resources legislation (see Appendix I)
- providers of environmental education programs and activities who use education and training, information, advice and communication tools (see Appendixes II and III)
- providers of professional development and other support for environmental educators.

Within these organisations, a range of staff has a role in helping to integrate environmental education into corporate goals, policies and operations. With guidance from the CEO, individuals responsible for corporate affairs, policy, operations and human resources can ensure that environmental education is an effective and widely used tool.

Environmental education specialists will play a decisive role in implementing the plan. However, given the broad definition of environmental education adopted for the plan, staff involved in communications, training, public relations and information will have an equally important role to play. (For details of the definition and scope of environmental education, see Section 2 and Appendixes II and III.)

Putting the plan into action

It is recommended that organisations give priority to implementing the plan in the following areas:

1. Corporate policy

Managers can identify opportunities to add value to environmental outcomes by incorporating environmental education in the corporate goals and policies of the organisation. This can be undertaken by integrating environmental education goals and strategies into corporate documents, including their relation to other environmental management tools such as regulation, economic incentives and infrastructure.

Undertaking this step will assist the organisations to meet Outcome 1, Strategy 1, (p. 18).

2. Improving program planning and delivery

Operations within organisations

Identify opportunities for training staff to contribute to minimising the environmental impact of the organisation's operations. For example, a training plan might be developed to assist staff to improve their understanding of environmental issues and reduce their impact on natural resources. For government organisations, this would include training to effectively implement Government Energy Training Plans, a Waste Reduction and Purchasing Plan and Green Fleet (Action 56, p. 42).

Education program planning and delivery

Review existing and planned programs to ensure:

- environmental education is integrated with other management tools (see Outcome 1, pp. 18–19).
- environmental education initiatives are planned and delivered in a coordinated way which involves all relevant government and non-government sectors (see Outcome 2, pp. 20–30).
- partnerships and networks are fully used to increase the effectiveness of programs, reduce duplication and maximise the efficient use of limited resources (see Outcome 3, pp. 31–33).

3. Improved knowledge of environmental education

Identify opportunities to implement or enhance:

- research into the contributions environmental education might make to business outcomes.
- training and professional development of staff. In addition to education and training to minimise the environmental impact of the organisation's operations, opportunities can also be identified to enhance staff knowledge of environmental education. It will be important to improve our ability to integrate this education with other environment management tools and to improve our ability to develop, deliver and evaluate environmental education programs.
- networking for environmental education knowledge-sharing (see Action 44, p. 38).
- monitoring and reporting of environmental education outcomes.

4. Contribute to specific NSW high priority actions

All stakeholders should examine the following high priority actions for relevance to their activities, and consider the opportunities provided by supporting their implementation. In some instances these actions have already commenced. Others will be put in place or completed by June 2003 and include:

- maximising the value of investment in environmental education by establishing a network of lead agencies to better coordinate programs (see Action 6, p. 20)
- establishing a staged sequence of environmental education plans for statewide priority environmental issues (see Action 7, p. 20)
- education initiatives to address statewide priority environmental issues (see Action 9, pp. 21–30), including:
  - salinity
  - stormwater pollution
  - sustainable energy use and greenhouse gas reduction
  - cleaner production and workplace environmental education
  - water management for the environment, water conservation and water monitoring
  - air quality
- contributing to an understanding of sustainable ways of living though the promotion and further development of the *Our Environment – It's a Living Thing* campaign (see Actions 9.20, p. 29; 20, p. 32; and 29, p. 35).

- developing and enhancing environmental education for school students through implementation of the *Environmental Education Policy for Schools* (DET 2001) (see Action 11. p. 30)
- improving access to environmental education programs and research through web based links for government and non government environmental education programs, resources and contacts (see Action 28, p. 34)
- building the capacity of the environmental education community through enhanced training, professional development and other support (see Outcome 5, pp. 38–39).

1.

INTRODUCTION

1.1 Background

The NSW Council on Environmental Education was established under the *Protection of the Environment Administration Amendment (Environmental Education) Act 1998* to advise the State Government on strategic directions for environmental education. A major task for the Council since it met for the first time in November 1999 has been to prepare the first three-year Environmental Education Plan for NSW. The plan will:

- describe the contributions public authorities, local government, community organisations and industry can make to environmental education
- set performance indicators to ensure those contributions meet the specific needs of the community for environmental education.

The plan is the culmination of an extensive development process which included the release of a discussion paper, *Planning for Environmental Education in NSW* (CEE 2000), and the development of a stage 1 plan based on it; preparation of an inventory of NSW environmental education programs; and the release, in August 2001, of a working paper, *Environmental Education in NSW: Towards a three-year plan* (CEE 2001), which outlined concrete proposals for a plan.

To refine the proposals presented in the working paper, the Council encouraged and obtained extensive feedback through a series of consultation forums and written submissions. This feedback was considered by the Council and incorporated into the final plan.

1.2 Purpose of the plan

The plan sets out a strategic framework to develop environmental education in NSW over the next three years. Guiding the preparation of the plan has been a **vision** to achieve:

> *Effective and integrated environmental education which builds the capacity of the people of NSW to be informed and active participants in moving society towards sustainability*

The plan aims to address the needs of those delivering environmental education as well as those who seek access to it. These aims will be achieved through Strategies and Actions leading to Outcomes which focus on:

- developing coordinated and comprehensive provision of environmental education which addresses priority sustainability issues
- building the capacity of the environmental education system to address those sustainability needs (see Table on p.16).

1.3 Partners and participants in the plan

A range of stakeholders whose work involves environmental education and natural resources responsibilities will work together to implement the plan. These partnerships will involve individuals and organisations who:

- are responsible for corporate policy as well as managing programs and operations that impact the environment
- deliver environmental and natural resources programs, including those which involve a partnership between State agencies and peak non-government organisations, industry and community groups
- provide environmental education programs and activities, using education and training, information, advice and communication tools (see Appendixes II and III)
- deliver professional development and other support for environmental educators.

1.4 Resourcing the plan

Over the past twelve months the Government has announced more than $25 million towards new environmental education initiatives for the three years covered by the plan. Along with these commitments the plan seeks to maximise the value of existing extensive commitments across Government, industry and community. This includes establishing partnerships to identify common goals and share resources, as well as improving coordination and networks to reduce duplication and allow redirection of some funding. Government and non-government organisations are encouraged to continue to identify innovative funding sources for their education programs including a mixture of grants, sponsorship, levies, user-pays approaches and subsidies.

1.5 Overview of the plan

The structure of the Environmental Education Plan 2002–05 is presented below.

THE PLAN'S FOUNDATIONS
(Section 2)

The vision, scope, principles and strategic directions for environmental education in NSW

Read this section to find out about the thinking that underpins the plan

THE PLAN
(Section 3)

Outcomes, strategies and actions for achieving the NSW Government's vision for environmental education

Read this section to find out what needs to be done

IMPLEMENTATION, MONITORING AND REPORTING
(Section 4)

Processes for implementing, monitoring and reporting on the plan

Read this section to find out how the plan will be implemented and evaluated

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2.

THE PLAN'S FOUNDATIONS

The plan is based on the NSW Government's vision for environmental education, a broad definition of its scope and a set of guiding principles. It also draws on a comprehensive assessment of environmental education needs in NSW. From these foundations, the plan establishes future directions for environmental education in this State. These needs form the basis of the plan's outcomes.

2.1 Vision

Vision and scope of environmental education

The Environmental Education Plan 2002–05 is founded on a vision to achieve:

> *Effective and integrated environmental education which builds the capacity of the people of NSW to be informed and active participants in moving society towards sustainability*

This vision is encapsulated in the internationally accepted term 'education for sustainability'. It voices a new awareness that education, information, training, communication and community participation all have central roles to play in moving society towards sustainability. It envisages a community where environmental learning is central to decision-making and living, where people and organisations consider ecosystem health on equal terms with issues such as sustainable production and consumption.

This vision requires an appreciation of the breadth of environmental education by all involved. On this basis, environmental education is seen as any process or activity which facilitates the development of awareness, knowledge, skills and attitudes leading to environmentally responsible practices and behaviour.

Environmental learning is lifelong and takes a variety of forms (see Appendix III), not only the more familiar *formal* education and training in schools, TAFE and universities, but also *non-formal* programs and activities such as:

- personal education programs
- information products and services, including via print, web and telephone
- training, development, extension, awareness-raising and site-specific programs, including workplace and community-based programs
- public communications programs, including information delivered through campaigns and mass media
- community development programs.

The strength of environmental education lies in its ability to promote environmental citizenship. By empowering individuals to understand their relationship to the environment, education encourages a personal ethic where environmentally responsible decisions and actions are an integral part of our everyday lives.

Principles underpinning the plan

Six principles of environmental education flow from the plan's vision and underpin its proposals:

- *The development and delivery of environmental education in NSW is aimed at assisting the community to move towards sustainability.*

  Effective and integrated environmental education programs are integral to building an informed, active and environmentally responsible community.

- *Environmental education is integrated with other environmental management tools.*

  To achieve sustainability, environmental education must be integrated with public policy, regulation, economic incentives, infrastructure, research, and monitoring and reporting.

- *Environmental education acknowledges the complex connections between diverse aspects of environmental problems.*

  A more comprehensive and proactive approach to addressing environmental issues shifts the focus of environmental education from specific local and visible symptoms of environmental problems (such as water pollution or waste disposal) to the underlying causes of these problems (such as personal and social values, and organisational structures).

- *Environmental education promotes social change through the initiatives of individuals and organisations.*

  Quality environmental education promotes changes in personal behaviour, and social and organisational practices to deliver changes in broad social, economic and physical infrastructure.

- *Environmental education is relevant to all aspects of our lives and is regarded as a lifelong learning process.*

  Environmental education helps the community make decisions and take actions that are environmentally sustainable at home, work and during recreation and throughout the whole of our lives.

- *Continual improvement is at the basis of all planning, delivery and evaluation of environmental education.*

  Improving the effectiveness of environmental education involves the use of research, evaluation, networking and quality management.

2.2 Assessing environmental education needs in NSW

This plan is based on a comprehensive assessment of the environmental education needs of NSW people conducted by the Council and detailed in its working paper *Environmental Education in NSW: Towards a three-year plan* (CEE 2001). Supporting this needs analysis was a review of the priority sustainability issues for NSW.

Priority sustainability issues

To be effective, environmental education must address the agreed priority sustainability issues of the people of NSW. This process involves individuals and groups acting in a diverse range of arenas.

Three key sources were used to identify the priority sustainability issues:

- *NSW State of the Environment 2000* (EPA 2000), which identifies scientific priorities
- the NSW Government's Environment Statement 2001, *Action for the Environment* (NSW

Government 2001), and key strategic policy documents (see Appendix V), which identify Government priorities

- the EPA's statewide survey, *Who Cares About the Environment? 2000* (EPA 2001), which identifies community priorities.

Each of these presents a similar set of priority issues, which appear in the list below, although there will be a number of regional and local variations within these statewide priorities. It is expected that the outcomes of the plan will be directed to making improvements in these areas, but will not be limited to them.

In determining these priority issues, the Council identified key *overarching* sustainability issues which are necessary to address the systemic nature of sustainability as well as a number of *specific* issues.

Overarching issues

Sustainable lifestyles

- sustainable consumption and production
- social values and desirable futures
- development and equity
- global perspectives

Ecosystem health and bioregional awareness

Infrastructure and institutional arrangements

Local communities taking action

- increasing community involvement in managing the environment
- improving community access to better information
- addressing the specific needs of community sectors including ethnic communities, Aboriginal and Torres Strait Islanders, regional and rural NSW
- increasing Aboriginal involvement in managing National Parks and reserves

Specific sustainability issues

Clean air, healthy communities

- improving public transport
- cleaner cars, trucks and buses
- cleaner industry
- air pollution from homes and small business
- stratospheric ozone depletion
- air toxics

Clean water, healthy rivers

- aquatic ecosystem health
- environmental flows
- water quality
- diffuse and point-source water pollution

Protecting the coast

- better coastal management
- assessing the impact of fisheries
- reduced waste from vessels

Waste management

- waste avoidance
- resource recovery
- waste disposal
- extended producer responsibility

Chemical management

- pesticides reform
- low chemical pest control
- new controls on industrial chemicals

Healthy, productive land

- population and resource consumption issues
- natural resource management
- soil salinity, erosion, acidity and soil health problems
- energy demand, production and consumption issues

Conserving natural heritage

- terrestrial biodiversity
- aquatic biodiversity
- threatened species and ecological communities
- conserving native vegetation
- pest management

Sustainable energy use, cutting greenhouse gases

- reducing energy emissions
- improving energy efficiency
- producing green power
- establishing markets in environmental services

Promoting livable communities

- improving planning
- green development offsets
- reducing odours
- neighbourhood peace and quiet

It is important to note that the integration of the overarching issues within environmental education programs will be critical to achieving sustainability. At the same time, education on specific sustainability issues will be necessary to engage individuals and encourage them to consider sustainable decisions and actions. All programs will need to recognise that individuals and organisations have different levels of understanding about their role in creating a sustainable society, and the environmental education provided must be appropriate to their needs.

NSW environmental education needs

As outlined in the earlier working paper (CEE 2001), the Council conducted an extensive review of environmental education in NSW in late 2000 to identify areas needing improvement. In general the review found that much high quality environmental education was occurring, but there were some important areas where action is required. The needs identified from the review are summarised below.

Need for a more holistic approach to environmental education

Some programs deal with specific environmental issues in isolation from key factors which are causally related or relevant to solutions. A more integrated approach is required in framing environmental issues and challenges and designing education programs. There is a need:

- for providers to consider the full range of interrelationships which might be relevant to the environmental issue or challenge under consideration
- to provide environmental education that addresses wider systems aspects, e.g. sustainability, rather than specific problems and issues, e.g. stormwater
- for better integration of environmental education delivery within specific programs with various aspects packaged together better and delivered as interrelated programs.

Need for improved access to environmental education programs

There is a major challenge in providing environmental education equally to all people in NSW. It is important to ensure it is spread across all sectors and regions and to groups with special needs, taking into account, in particular, cultural background, language and disability. There is a need:

- for all agencies and organisations to review, in conjunction with their stakeholders, the adequacy of environmental education programs with a view to addressing gaps and needs, including special needs, such as those of ethnic communities, Aboriginal and Torres Strait Islanders, young people and the disabled
- for improved access to information about environmental education programs and ways to develop closer connections between providers and users of environmental education products and services
- for improved access to electronic information which enhances knowledge, improves skills and promotes environmentally appropriate behaviour.

Need for better planning, coordination and partnership programs

The way in which programs are planned and their ongoing coordination have been identified as needing improvement. There is a need:

- to develop environmental education strategies (within government and across sectors) which align to agreed cross-sectoral environmental priorities
- for stakeholders to consider adopting common and complementary goals, principles and priorities for environmental education in NSW
- for widely understood and accepted indicators of effectiveness of educational programs and systems in moving towards sustainability.

Need for enhanced professional development and training

In some situations, the planning, implementation and evaluation of environmental education is being undertaken by staff who do not have adequate training to enable them to realise the full potential of their work. On occasions, decisions on environmental education are being made without appropriate information and expertise. There is genaral agreement among environmental educators that making advances will require improved understanding of environmental education as a tool for achieving sustainability. There is a need:

- for enhanced ongoing professional development opportunities for those working in the field of environmental education
- to better articulate the goals and methods of education for sustainability in training and professional development programs
- to integrate environmental content into existing professional development and training programs
- to equip practitioners in the formal education sector to incorporate sustainability issues in all curriculum areas
- for workforce mobility across sectors for those working in environmental education
- for improved training in approaches to consultation, community involvement, participation and liaison skills for those working in environmental education
- for expanding the range of occupations where environmental education is a formal requirement for accreditation (pre-service) and/or for continuing employment (an in-service priority), such as school teaching.

Need for quality improvement, research and evaluation

The review of current environmental education programs conducted by the Council identified a lack of clarity about the strategies for change; how goals, objectives and strategies are linked; the appropriateness of methods for participant groups; and how to integrate consultation, research and evaluation. There is a need:

- to identify and promote awareness of models of good practice and to enhance information sharing, and the use of evaluation and research
- for improved understanding of the communities that environmental educators seek to involve in programs, particularly groups that are sometimes marginalised or who have special needs, such as those from ethnic communities, indigenous people, those in rural/ regional NSW, etc.
- to promote improved models for learning in environmental education
- for research into how best to develop organisational capacities and learning for education for sustainability, particularly through greater use of action research
- for a wide understanding and integration within programs of the underlying principles of education for sustainability.

Need for appropriate resourcing and incentives

Although significant resources have already been directed towards environmental education in NSW, the challenge is still enormous. There is a need:

- for many providers to review current sources of funding for environmental education and if necessary to identify new sources of funds
- for providers to identify where volunteers might add to the impact of the program and to promote the capacity of organisations to manage volunteer programs
- for agencies to consider the use of incentives or opportunities in order to promote better environmental practice, e.g. enabling not-for-profit organisations such as schools to retain funds saved through energy conservation
- for industry to specifically cost environmental inputs and impacts and to identify cost-benefit/payback periods for environmental operational change, thus accelerating the implementation of sustainable practice.

2.3 Future directions for environmental education in NSW

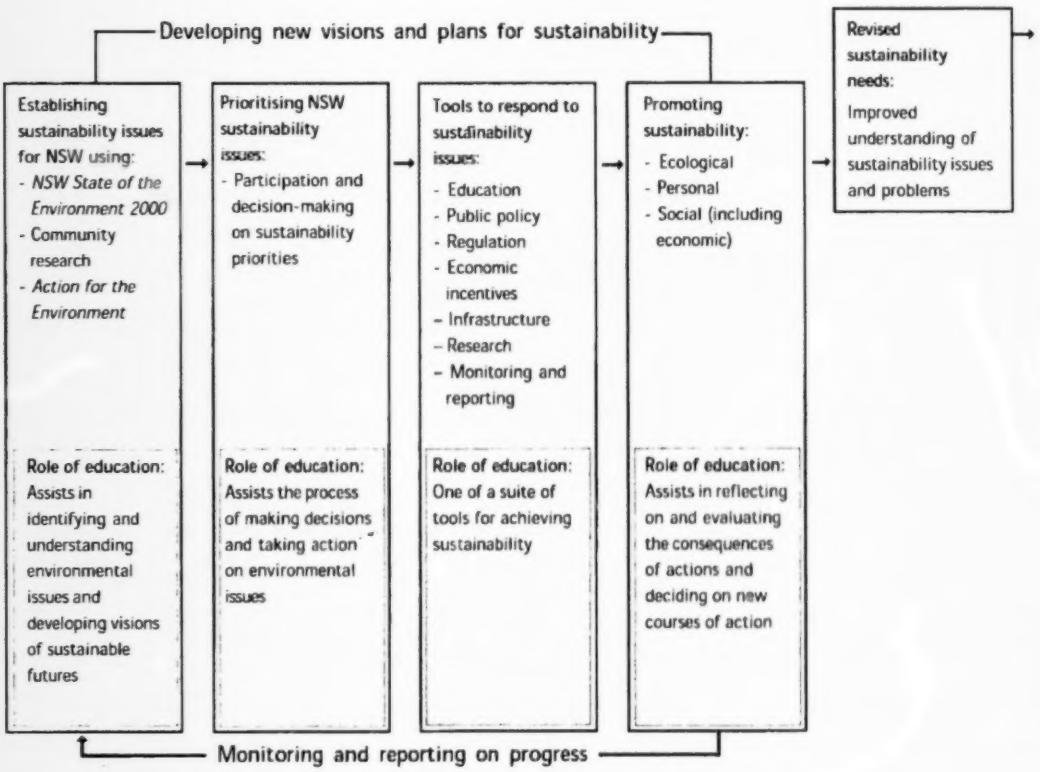
The vision, principles and needs analysis provides a basis for establishing clarity about the role of environmental education in NSW and strategic directions for change.

Role of environmental education in achieving sustainability

Environmental education has a key role to play in achieving sustainability outcomes for NSW: it is how we can learn to move towards sustainability over time.

Environmental education, as shown in Figure 1, must be comprehensive and closely integrated with the suite of other tools used to address sustainability issues. These tools include public policy, regulation, economic incentives, infrastructure, research, and monitoring and reporting. Although none of these tools alone can provide the impetus to move towards sustainability in NSW, they can each play a complementary role when used together. The role of each tool in relation to the others must be tailored to meet specific needs.

Figure 1: Role of environmental education in achieving sustainability


Developing new visions and plans for sustainability
Establishing sustainability issues for NSW using:
- NSW State of the Environment 2000
- Community research
- Action for the Environment
Prioritising NSW sustainability issues:
- Participation and decision-making on sustainability priorities
Tools to respond to sustainability issues:
- Education
- Public policy
- Regulation
- Economic incentives
- Infrastructure
- Research
- Monitoring and reporting
Promoting sustainability:
- Ecological
- Personal
- Social (including economic)
Revised sustainability needs:
Improved understanding of sustainability issues and problems
Role of education: Assists in identifying and understanding environmental issues and developing visions of sustainable futures
Role of education: Assists the process of making decisions and taking action on environmental issues
Role of education: One of a suite of tools for achieving sustainability
Role of education: Assists in reflecting on and evaluating the consequences of actions and deciding on new courses of action
Monitoring and reporting on progress

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To effectively address specific sustainability issues, environmental education must comprise a comprehensive set of programs designed to be complementary across all relevant sectors (i.e. all stages of the formal education sector, government agencies, the community, non-government organisations, industry, local government). It will be essential that delivery is shared across the appropriate sectors in an effective, efficient and mutually supportive manner.

Directions for environmental education in NSW

In NSW the focus of environmental education programs has shifted in recent years, due to a deeper understanding of the causes of environmental problems and how to prevent them. This has resulted in education programs moving from the reactive approach of the past to a more proactive, holistic and systemic perspective on environmental issues.

Most notably, the focus is moving towards considering:

- environmental issues within the context of sustainability
- the underlying causes of problems, such as human values, behaviour and lifestyles or the policies, practices and infrastructure of organisations, communities and societies rather than looking only at specific local environmental problems, such as water pollution and waste disposal.

For example, a waste education program in the past might have only addressed proper disposal, reuse and recycling; today it is likely to include the more fundamental approaches of waste avoidance, resource conservation and how to reduce consumption. This is also evident in the current proactive approach to protecting and conserving land and water resources, natural landscapes and biodiversity rather than waiting for symptoms to appear and ecosystems to collapse before acting to 'fix them up'.

These changes in the direction of environmental education may be described as moving towards 'education for sustainability'. The changes over time in a number of the dimensions of education for sustainability are shown in Table 1.

Table 1: The shifting emphases in environmental education over time

Aspect	Dominant approach	Future perspectives
Problem	Pollution/end of pipe	Pollution/source reduction
Solution	Environment protection	Sustainability solutions
Connectedness	Humans separate from ecosystems	Humans as part of ecosystems
Time frame	Present/short term	Future/long term
Goals	Awareness and knowledge	Changed behaviours, practices and structures
Education methods	Predominantly information-based	Participatory and experiential learning, community development and capacity-building
Learners	Audiences/target groups	Participants/stakeholders
Implementation	Mainly top down	Through partnerships/networks
Legitimacy	Predominantly technical expertise	Based on different ways of knowing

Education based on specific sustainability issues will continue to have an important role in engaging individuals and encouraging them to consider sustainable decisions and actions. A shift in the emphasis over time to more proactive and holistic approaches will, however, enhance the sustainability outcomes these issue-based education programs offer.

Needs and outcomes for the plan

In determining the framework for the plan, the Council considered both the priority sustainability issues and environmental education needs outlined above. How these were used to lead to Outcomes for the plan is shown below.

Priority sustainability issues

- Sustainable lifestyles
- Ecosystem health and bioregional awareness
- Infrastructure and institutional arrangements
- Local communities taking action
- Clean air, healthy communities
- Clean water, healthy rivers
- Protecting the coast
- Waste management
- Chemical management
- Healthy, productive land
- Conserving natural heritage
- Sustainable energy use, cutting greenhouse gases
- Promoting livable communities

Environmental education needs

- A more holistic approach to environmental education
- Improved access to environmental education programs
- Better planning, coordination and partnership programs
- Enhanced professional development and training
- Quality improvement, research and evaluation
- Appropriate resourcing and incentives

Integration of needs

Plan actions aimed at achieving outcomes (see Section 3) integrate both sets of needs by:

- developing *the capacity of the environmental education system* to address sustainability needs

while at the same time:

- ensuring there is *coordinated and comprehensive provision of environmental education* which addresses priority sustainability issues (see Section 3: Outcome 2, Actions).

Plan outcomes

- Improved integration of environmental education with other tools and strategies used by organisations to promote ESD
- Enhanced cross-sectoral coordination of environmental education programs
- An expansion of partnership and network activities between environmental education providers which enhance the quality and reach of their programs
- Improved access of all people in NSW to high quality environmental education programs
- Enhanced training, professional development and other support for those developing and delivering environmental education
- Increased research and evaluation of effective environmental education
- Increased active and informed participation by NSW people in creating a sustainable future

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2.4 Judging the effectiveness of environmental education

The Council is responsible for developing indicators to measure the effectiveness of environmental education in NSW. These indicators can be used to monitor progress towards the outcomes identified in the plan.

The indicators will allow stakeholders to:

- assess the effectiveness of the plan's implementation
- facilitate discussion about the extent to which environmental education is meeting identified needs.

To measure whether these goals are being achieved, various indicators are needed for outcomes at different levels. Figure 2 shows that to measure the effectiveness of environmental education, indicators are required across a range of causally related levels in a hierarchy of outcomes. The figure also demonstrates the link between this plan, the outcomes of environmental education and priority sustainability outcomes.

Figure 2: Generic outcomes and indicators of environmental education for sustainability

Sustainability outcomes
Indicators: Measures of movement towards sustainability (ecological, social, personal and economic)
Outcomes of environmental education
Indicators: Measures of improvements across the community in environmental knowledge, attitudes, skills and behaviours/ practices
Outcomes of the plan
Indicators: Measures of achievement of the plan's outcomes
Implementation of the Environmental Education Plan
Indicators: Measures of implementation of the plan's strategies and actions
Sustainability needs
Indicators: Measures of the community's environmental and educational needs and priorities

In developing indicators it has been recognised that there is a need to produce both direct and indirect indicators which measure the effectiveness of environmental eduction at different levels. This is because it is difficult to differentiate the role of environmental education from other environmental management tools in achieving a sustainability outcome.

Performance indicators for the plan are listed in Section 3. How these indicators will be monitored and evaluated is discussed in detail in Section 4.

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3.

THE PLAN

The Outcomes in the Environmental Education Plan 2002–05 below provide a strategic direction for achieving effective and integrated environmental education in NSW. Realising these Outcomes will be a staged and ongoing process. This section also outlines the Strategies and Actions that will be employed to deliver the Outcomes. It should be noted that not all Strategies and Actions will be achieved in full within the three-year time frame of this particular plan.

Outcome 1: Improved integration of environmental education with other tools and strategies used by organisations to promote ESD

Environmental education is a key environmental management tool for achieving ESD in NSW. As such it is most successful when fully integrated during the planning, development and implementation phases of programs with the suite of other tools used for this purpose. These include public policy, regulation, economic incentives, supportive social and physical infrastructure, research and monitoring.

Strategy	Action	Responsibility*	Performance Indicator#
Strategy 1.1: Promote the integration of environmental education within corporate visions and key result areas through recognition that all organisations have environmental responsibilities	*Action 1:* Organisations to include within their corporate planning documents a clear statement of their environmental education goals and the steps that will be taken to meet these goals.	**All organisations•**	*Strategy 1 Indicator:* % of Government agencies including a statement of education goals in corporate planning documents as reported via the annual reporting process (ARP) and the triennial inventory (TI)

* In the *Responsibility* column, general classifications such as 'State agencies', 'NGOs', 'environmental education providers' and 'VET providers' are used. This does not imply that all organisations within the classification will be involved in delivering the Action(s).

Performance Indicators will be collected for each strategy in the way specified in Section 4 – Implementation, Monitoring and Reporting. In summary, this will include information from the annual reporting process (ARP) followed by State Government agencies and a triennial inventory (TI) of providers and their programs prepared by the Council. It should also be noted that, in many cases, indicators for Strategies do not relate to all Actions.

• Lead organisations are shown in bold

Strategy 1.2: Integrate education within all major environmental and natural resource management programs and reforms	*Action 2:* Environmental and natural resource management programs and reforms to include details of the role of education in achieving their stated outcomes. An adequately resourced education plan should accompany the implementation of these initiatives and demonstrate the links between education and other management tools.	**State agencies, peak non-government organisations (NGOs), local government**	*Strategy 1.2 Indicator:* % of new major programs and reforms that incorporate education in meeting the Government's environmental priorities, as obtained from the ARP and the TI
Strategy 1.3: Build an understanding of education as a tool for achieving environmental gains in conjunction with structural, economic and regulatory measures	*Action 3*: All organisations involved in the delivery of environmental education to promote awareness of its role and its value when integrated with other tools for achieving ESD	**Environmental education providers**	*Strategy 1.3 Indicators:* No. of 'good practice' case studies (integrated with other tools) captured on the Council's website and identified in the ARP
	Action 4: All relevant organisations be invited to identify and promote 'good practice' examples of the integrated use of education, research and monitoring, public policy, regulatory, infrastructure and economic tools. Where these case studies are published on the internet they should link to the Council's website.	**Council, organisations with environmental and natural resource responsibilities**	
	Action 5: Environmental education funding bodies, such as the Environmental Trust, to consider increasing the priority given to the funding of research into the integration of environmental education with other environmental management tools	**Environmental education funding bodies**	Value and % of funds committed to research and evaluation of integrated environmental education strategies aimed at sustainability

Outcome 2: Enhanced cross-sectoral coordination of environmental education programs

High quality environmental education programs are developed and delivered through a coordinated and comprehensive approach involving all relevant sectors in planning and delivery. The sectors include State agencies, local government, Commonwealth bodies, peak non-government organisations (NGOs), industry, community groups, schools, vocational education and training (VET) providers and the tertiary education sector.

Strategy	Action	Responsibility	Performance Indicator
Strategy 2.1: Coordinate education programs for each priority environmental issue across all sectors, including government, industry, NGOs, community organisations and the formal education sector	*Action 6:* Establish a formal network of government agencies that lead major environmental education programs (eg salinity, biodiversity, sustainable energy, water, waste) (Environmental Education Coordinating Network EECN) to meet regularly, coordinate activities, and report to Council to: - ensure integration and involvement of non-government stakeholders in these programs - share learning, skills and resources - ensure efficient use of resources. This network will implement an agreed monitoring and reporting framework for government agencies. This network will be a conduit for information regarding major environmental education programs to Council.	**State agencies**	*Strategy 2.1 Indicators*: EECN established and actively meeting terms of reference
	Action 7: Informed by Action 6, the Council will collaborate with lead agencies via the EECN to ensure that there are environmental education plans for identified priority areas.	**Council, State agencies**	No. of environmental education plans identified for priority areas reported through the ARP
	Action 8: Non government organisations should present ideas, good practice case studies, and proposed methods for integration for major environmental education programs to the EECN.	**Non government organisations**	

Strategy 2.2: Deliver specific environmental education programs that address priority sustainability issues in a coordinated fashion Note: Action 9 focuses on statewide programs. However, the cumulative contribution of smaller local and regional programs is equally important. In many cases, these programs are delivered by local government and community organisations.	*Action 9*: State agencies and other providers to deliver environmental education programs as part of significant environmental and natural resources initiatives. This should include education activities that: *9.1*: Improve the management of salinity as identified in the *NSW Salinity Strategy*, including: - information and advice provided through the Salinity Information Program, Salt Action teams and other landholder education initiatives - the incorporation of salinity issues by VET providers, tertiary institutions and schools with courses in agriculture, environmental studies, geography, town planning and natural resources management. Officers from the DLWC, NSW Agriculture, NPWS and Planning NSW should assist in the development of appropriate teaching/ learning materials for this Action. *9.2*: Promote sustainable agriculture, including: - delivery of the environmental education components of the *Policy for Sustainable Agriculture in NSW* and implementation of the Education and Training Plan for Sustainable Agriculture in the Sydney Basin - development and delivery of environmental management systems skills training to farmers by NSW Agriculture and Rural Industry R&D Corporations (RIRDCs)	**Department of Land and Water Conservation (DLWC), NSW Agriculture,** National Parks and Wildlife Service (NPWS), Department of Education and Training (DET), Planning NSW, State Forests of NSW, other State agencies and education providers, local government, Catchment Management Boards **NSW Agriculture, Planning NSW,** RIRDCs, VET providers, DLWC, Catchment Management Boards	*Strategy 2.2 Indicators (Actions 8.1–8.20)*: Progress towards completion of scheduled program actions reported through the ARP Coordination examples as reported annually by Government agencies and triennially in the inventory by other providers

- education programs for farmers about:
  - environmental requirements and guidelines for the environmental impact statements needed for business expansion
  - the appropriate location for rural residential development in terms of preserving productive agricultural land and natural resources
- experiential learning programs such as Prograze, Soilpak and Landscan
- encouraging access to the FarmBis program which provides funding for farmers and land managers to undertake training in natural resources management courses such as property management planning.	

9.3: Improve chemical management through initiatives such as the delivery of training at an appropriate level, as required by the regulations of the *Pesticides Act 1999*	**VET providers, Environment Protection Authority (EPA)**
9.4: Promote the conservation of biodiversity, including: - delivery of the education and involvement components of the *NSW Biodiversity Strategy* - initiatives responding to the *Threatened Species Conservation Act 1995* and the *Fisheries Management Act 1994* - a project to enhance the community's understanding of the need to protect and conserve urban wildlife and what they might do to achieve this outcome	**NPWS**, NSW Fisheries, NSW Agriculture, Planning NSW, State Forests of NSW, other State agencies, local government, NGOs, VET providers, tertiary institutions

- guidelines to enhance the undertstanding of the community, councils, developers and landowners about the need to ahieve a balance between development and conserving NSW threatened species and urban biodiversity - pest and weed management, including the Weedbuster campaign and other education components of the *NSW Weeds Strategy*	
9.5: Enhance community capacity for involvement in nature and cultural heritage conservation on private and public lands through conservation partnerships.	**NPWS**, other State agencies, NGOs, VET providers
9.6: Improve community and landholder understanding of 'landscape' and catchment management issues such as soils, water and vegetation management, including: - soil programs such as Acid Soil Action - water management for the environment, including education initiatives linked to the NSW water reform program - water conservation, including Waterwise, Every Drop Counts and other education components of the *NSW Water Conservation Strategy* - water quality monitoring and associated education initiatives such as Streamwatch, Waterwatch, the NSW Water Bug Survey, Murder Under the Microscope and Kids, Companies and Creeks. - the conservation and sustainable management of native vegetation, including education initiatives as part of the *Draft Native Vegetation Conservation*	**DLWC, NSW Agriculture, Sydney Water,** EPA, NSW Health, Planning NSW, other State agencies, local government, Sydney Catchment Authority, State Forests of NSW, Landcare, Rivercare, Catchment Management Boards, Water Management Committees, Vegetation Management Committees, NGOs, VET providers, other school and community volunteers

Strategy, Regional Vegetation Management Plans and the Native Vegetation Management Program	
9.7: Increase community and landholder understanding of acid sulfate soils (ASS) through implementation of the education and community involvement aspects of the ASS Program	**Acid Sulfate Soils Management Advisory Committee**
9.8: Reduce air pollution, including: - education components of the Domestic Air Quality Management Program including the wood smoke campaign and *Don't Light Tonight* alerts - education components of Local Air Quality Management Plans and the Local Air Quality Improvement Program - Airwatch, Smogbusters and other school, community and industry education initiatives outlined in *Action for Air* - air quality monitoring and associated education initiatives	**EPA, local government,** NSW Health, Nature Conservation Council of NSW, Roads and Traffic Authority (RTA), industry, VET providers, tertiary institutions
9.9: Promote sustainable transport behaviour, including: - community education and information programs that encourage public transport use - community education programs that encourage walking and cycling as part of *Action for Transport 2010*, *Action for Bikes: BikePlan 2010* and the *National Greenhouse Strategy* (AGO 1998)	**Department of Transport, RTA,** NSW Health, Planning NSW, transport operators, other State agencies, NGOs

- education programs that promote teleworking in the government and business sectors - a training program for councils on promoting public transport, walking and cycling through applying the Integrating *Land Use and Transport Policy* - information programs on efficient vehicle use	
9.10: Promote sustainable energy use and reduce greenhouse gases, including: - education components of energy generation and renewable energy programs such as Green Power - education components of energy conservation and energy efficiency programs for: government (such as the national Cities for Climate Protection program, Energy Smart Councils and the application of Government Energy Management Plans); industry (such as Energy Smart Business, the national Greenhouse Challenge and the building component of *Sustainable Urban Settlements: Guidelines for regional NSW*, [DUAP 2000b]); and schools and households (such as Energy Smart Zone, Greenhouse Action and Cool Communities) - promotion of Energy Smart products to consumers - promotion of the role of trees, especially newly planted forests, as capable of providing offsets to greenhouse gas reduction.	**Sustainable Energy Development Authority (SEDA)**, Department of Public Works and Services (DPWS), RTA, Planning NSW, other State agencies, local government, industry, NGOs, VET providers, tertiary institutions
9.11: Improve community and industry behaviour to reduce stormwater pollution through the delivery of a range of statewide and local education activities	**EPA, local government,** other State agencies, NGOs, industry, VET providers

9.12: Reduce the incidence of littering and illegal dumping through continued community education, including Clean-Up Australia Day	**EPA, Resource NSW,** other State agencies, local government, Clean-Up Australia and other NGOs, industry
9.13: Promote cleaner production, including: - a partnership program with individual businesses, clusters of businesses and industry sectors - environmental reviews and education initiatives conducted by local government - VET and other initiatives developed by State agencies, industry associations and individual businesses	**EPA, local government,** Department of State and Regional Development, other State agencies, industry, VET providers, NGOs
9.14: Improve waste management and resource recovery, including: - a review of the direction identified in *Focusing on our Future: Strategic Directions and Priorities for Waste Educators* (NSW Waste Boards 2001), followed by appropriate implementation - a range of education programs aimed at promoting the waste hierarchy, and in particular, encouraging reuse and recycling behaviour at home and work and in educational institutions - implementation of waste minimisation policies for Government agencies, including the Environmental Procurement Guidelines and the Waste Reduction and Purchasing Policy	**Resource NSW**, DPWS, other State agencies, local government, industry, NGOs

9.15: Protect drinking water, including education components of catchment management and environmental planning initiatives such as *Sustaining the Catchments* (DUAP 2000a)	**Sydney Catchment Authority, Planning NSW, other water supply authorities, DLWC,** NSW Health, local government
9.16: Promote sustainable management of the coastal zone, including: - school and community education programs such as: Our Coast; Project AWARE on the Rocks; the Fishcare Volunteer Program; and education initiatives associated with Coastcare, Dunecare and Beachwatch - education components of coastal resource management and planning that address marine protected areas, coastal and estuarine management planning and fisheries and aquaculture, including: the education component of the NSW Coastal Protection Package (such as information sessions for councils and industry groups on implementing the coastal State Environmental Planning Policy); and education programs for State policies and strategies such as the *NSW Coastal Policy* and the *NSW North Coast Aquaculture Strategy* (DUAP and NSW Fisheries 2000) - education programs in partnership with industries that rely on the health of the coastal zone, including the fishing and aquaculture industries.	**DLWC, NSW Fisheries, Planning NSW**, Coastal Council of NSW, local government, Waterways Authority, Coastal Environment Centre, marine discovery centres

9.17: Minimise the impact of recreation and tourism activities, including the education of boat owners and other users of the coastal zone, National Parks and other recreational areas	**NPWS, Waterways Authority,** Planning NSW, other State agencies, Tourism NSW, Coastal Council of NSW, industry associations, recreation associations
9:18: Enhance understanding of Aboriginal land management practices and cultural heritage, including: - cultural awareness training - cultural heritage interpretation and education by providing increased opportunities for Aboriginal people to 'tell their stories' through Discovery programs - environmental education initiatives associated with the management of National Parks and State Forests and the development of cultural and ecotourism opportunities - the *Protecting Our Places* grants program for environmental management by Aboriginal communities on their lands and on lands that are culturally significant to them	**NPWS, Department of Aboriginal Affairs, Environmental Trust,** traditional owners, State Forests of NSW, other State agencies
9:19: Promote livable communities, including: - developing an understanding of and implementing, sustainable building, design and construction through the Sustainability Advisory Council's education program for industry groups and the community	**Planning NSW**

	- providing councils, planners and the community with the education tool, *Sustainable Urban Settlements: Guidelines for regional NSW* (DUAP 2000b) - developing an education program for councils, architects and developers, including sustainable practices in residential flat building through the Design Quality Program - educating the community about *planFIRST*, a new State plan-making system that will deliver sustainability outcomes *9.20:* Promote ecologically sustainable ways of decision-making and living, including: - contributing to an understanding of sustainability through the *Our Environment – It's a Living Thing* campaign - overarching education for sustainability programs such as Sustainable Schools and Living Waters Living Communities - developing an understanding of global environmental issues, social equity issues and the relationship between environmental, social, personal and political issues	**EPA, DET, NGOs**, other environmental education providers	
Strategy 2.3: Improve coordination within the VET and school education sectors in relation to the production of teaching/ learning material	*Action 10:* VET providers to work closely with lead agencies responsible for environmental education plans to ensure that there is a coordinated approach to the development of courses, modules and teaching/learning materials relating to major environmental initiatives.	**VET providers, State agencies**	*Strategy 2.3 Indicators:* Number of jointly developed teaching and learning materials

	Action 11: DET to continue to implement a coordinated approach for developing and utilising teaching/learning resources for schools, including 'e learning resources' and on-line programs. This should be undertaken: - through the implementation of the *Environmental Education Policy for Schools* (DET 2001) - within the context of existing Board of Studies syllabuses - in cooperation with the lead agencies identified in Action 6.	**DET**	Number of new DET high priority resources produced for schools each year.
Strategy 2.4: Influence the National Vocational Education and Training Sector to integrate sustainability principles and practices into National Training Packages	*Action 12:* Vocational education providers and industry organisations to collaborate to ensure that future national training packages include sustainability principles and practices.	**VET providers, industry**	
Strategy 2.5: Improve coordination of environmental education with national networks and activities in other States and Territories	*Action 13:* The Council will establish communication protocols with the National Environmental Education Council (NEEC) and the National Environment Education Network (NEEN) with the specific purpose of providing input where appropriate to the National Action Plan *Environmental Education for a Sustainable Future* (Environment Australia 2000) and avoiding duplication of resources and effort.	**Council**, NEEC, NEEN	*Strategy 2.5 Indicators:* Communication protocols and annual cycle prepared and signed off by the Council and NEEC/NEEN
	Action 14: The Council will provide regular feedback to the NEEC and the NEEN on Council activities and implementation of this plan.	**Council**	

Outcome 3: An expansion of partnership and network activities between environmental education providers which enhance the quality and reach of their programs

The presence of strong partnerships between NSW environmental education providers and stakeholders (other providers, consumers, policy partners, etc.) in the development, delivery and evaluation of programs increases their effectiveness, reduces the extent of overlap and maximises the use of limited resources. Where relevant, these partnerships are extended to agencies in other States and internationally.

Strategy	Action	Responsibility	Performance Indicator
Strategy 3.1: Encourage all education providers to work in partnership to deliver effective, well-targeted education	*Action 15:* As part of their project planning, education providers to make every effort to identify and work with appropriate partners in the development and delivery of their programs. (Note: Critical to these partnerships are close working relationships between government, peak NGO and industry providers and community organisations, including environmental, service, health and cultural organisations. These partnerships may also include links between environmental educators and other groups such as health professionals.) *Action 16:* Where appropriate, State agencies to link with local government and community organisations to ensure State programs meet local priorities and needs. *Action 17:* Council invite relevant organisations to provide information on successful environmental education partnerships for promotion on Council's websites and at conferences and workshops promoted by the Council (see Action 52).	**All environmental education providers** **State agencies, local government,** community organisations **Council**	*Strategy 3.1 Indicator:* No. of programs/projects developed in partnerships as reported in the ARP Examples of successful partnership activities

	Action 18: NSW Government agencies, through existing roundtable processes, to liaise with industry to: - determine methods of further promoting awareness of ESD among industry - consider how industry can play a role in promoting ESD awareness in its sectors - identify ways of improving partnerships between industry and government in the provision of education and training programs	**State agencies,** industry	
	Action 19: Industry associations and individual companies to extend existing links with Government agencies, other industry bodies, NGOs, the community and formal education sectors, in the development and delivery of environmental education programs	**Industry, other environmental education providers**	
	Action 20: The EPA to work in partnership with State agencies to develop and deliver the *Our Environment – It's a Living Thing* campaign	**EPA,** other State agencies	Number of *It's a Living Thing* actions completed and reported in the ARP
	Action 21: DET and NPWS to prepare consistent protocols to facilitate the development of joint programs for use in environmental education centres located in National Parks	**DET, NPWS**	
Strategy 3.2: Utilise partnerships to achieve cost efficiencies and identify additional resource options for the delivery of quality environmental education	*Action 22:* Providers to continue to identify innovative funding sources for their education programs. A mixture of grants, sponsorship, levies, user-pays approaches, subsidies and other funding sources should be identified.	**Environmental education providers**	*Strategy 3.2 Indicators:* No. of new resourcing options reported
	Action 23: Where relevant, agencies and other environmental education providers to investigate the use and support of volunteers to assist their education efforts	**State agencies, other environmental education providers**	% of providers reporting volunteer programs in the ARP

Action 24: Government agencies are encouraged to consider allowing cost savings generated from waste and energy reduction at specific locations to be used on environmental education programs at these locations	**State agencies**
Action 25: Savings realised by local government working together through regional organisations or other networks to deliver environmental education to be 're-invested' in education	**Local government**

Outcome 4: Improved access of all people in NSW to high quality environmental education programs

All people and sectors in NSW have access to high quality formal and non-formal environmental education services and programs. (See Appendix II and III for an overview of environmental education providers and their contributions.) These services and programs provide relevant experiences, information and support to enable people to make decisions (at home, work and in the community) which are consistent with ESD principles.

Strategy	Action	Responsibility	Performance Indicator
Strategy 4.1: Monitor future environmental education needs in order to propose adjustments to the delivery of environmental education	*Action 26:* The Council will analyse environmental education needs on a regular basis and coordinate and promote ongoing measures to meet these needs.	**Council**	*Strategy 4.1 Indicator:* Triennial review utilising the ARP and the TI
	Action 27: Informed by Action 24, the Council will communicate to environmental education providers and other stakeholders any deficiencies in the access of groups or communities to high quality environmental education programs.	**Council**	
Strategy 4.2: Promote comprehensive and up-to-date information on the range of environmental education programs available in NSW, other States and overseas	*Action 28:* The Council will increase availability of information regarding environmental education via the internet by: - facilitating in conjunction with the Office of Information Technology the provision of a facility for all environmental education programs available on the web to be linked to the NSW Government website - providing up-to-date information on major environmental education initiatives, research and Council activities.	**Council**	*Strategy 4.2 Indicators:* Audit of the Council's and other relevant websites to establish currency and usage

	Action 29: The Council and environmental education providers to use web-based links to improve access to environmental education information. This should include links to: - the Community Access to Natural Resource Information (CANRI) database - the *Our Environment – It's a Living Thing* website - the Environment Australia website.	**EPA, DLWC, Council,** other State agencies, other environmental education providers	No. of links established and used
	Action 30: The Council, through State agencies, will improve links with and information about programs conducted by other States, the Commonwealth and relevant overseas agencies.	**Council, State agencies**	
Strategy 4.3: Provide environmental education programs that meet the specific needs of community sectors	*Action 31*: All relevant organisations, in conjunctions with their stakeholders, to ensure their environmental education programs address the needs of ethnic Communities, Aboriginal and Torres Strait Islanders, people with disabilities, younger and older generations, those in regional NSW and other specific community sectors	**Environmental education providers**	*Strategy 4.3 Indicator:* Number of new programs and resources targeting specific community needs
	Action 32: Programs for specific community sectors to be designed in conjunction with representatives of the sector and to use appropriate language, linguistic and communication tools	**Council, environmental education providers**	
Strategy 4.4: Provide and where possible expand the availability of adult and community education, as well as environmental education to early childhood, school, TAFE and university students	*Action 33:* Adult and community education providers to be encouraged to include environmental education courses within their curricula to meet local needs	**Council, Board of Adult and Community Education**	*Strategy 4.4 Indicators:* No. of new environmental education programs and number of enrolments reported in the ARP and the TI
	Action 34: The Council to request the Office of Childcare to include environmental education in the early childhood curriculum framework	**Council, Office of Childcare**	

Action 35: The NSW Board of Studies to review the mandatory K–10 syllabuses to ensure they include cross-curriculum environmental education content as required by the Board's K–10 Curriculum Framework. This process should consider options for expanding the environmental education opportunities available to students.	**Board of Studies**	Review of mandatory syllabuses undertaken and reported in the ARP
Action 36: The Council to request the NSW Board of Studies to develop new courses in environmental education for school students.	**Council, Board of Studies**	
Action 37: DET to implement curriculum and school management initiatives, including: - the development of curriculum-related modules and teaching/learning materials within identified Key Learning Areas (e.g. the school education resource, *Stormwater – Everyone's responsibility, every day,* which supports the Key Learning Area, Human Society and Its Environment [Stages 2 and 5] or *Journey with a Purpose* which supports Personal Development, Health and Physical Education [Stages 4 and 5]) - components of the Sustainable Schools program such as school environmental management plans and an accreditation program.	**DET**	
Action 38: VET providers to be encouraged to include relevant environmental content in the courses and programs they offer.	**Council, VET providers**	

	Action 39: The NSW Government to communicate with all NSW universities to recommend they take appropriate action to increase the level and quality of the teaching of sustainability across degree programs. This may include encouragement for universities to sign and implement the *Talloires Declaration* (Association for University Leaders for a Sustainable Future 1990) and recognition of those institutions who take this action.	**NSW Government through appropriate Ministers, universities**	Proportion of NSW Universities meeting the agreed 'sustainability standards' based on the *Talloires Declaration*
	Action 40: The Council will consult with the National Environmental Education Council and relevant professional associations to encourage a proactive approach to promoting the enhancement of the teaching of sustainability in universities.	**Council, NECC, professional associations, universities**	
	Action 41: The NSW Government to communicate with the Federal Minister for Education, Training and Youth Affairs and the Federal Minister for Environment and Heritage to explore financial incentives to encourage the further development of campus functioning and curricula towards sustainability. This may take the form of retention of a small proportion of university funding contingent on meeting the agreed 'sustainability standards' based on the *Talloires Declaration*.	**NSW Government through appropriate Ministers**	
Strategy 4.5: Provide, and where possible expand, experiential learning in recreational, ecotourism and community information activities	*Action 42*: Environmental education providers and ecotourism operators to provide and where possible expand the availability of wilderness and nature experiences, outdoor education and high quality sites and displays, including visitor centres, museum exhibitions, walkways, parks and gardens and environmental education centres	**Experiential learning providers**	*Strategy 4.5 Indicator*: % increase in programs reported in the ARP and the TI

Outcome 5: Enhanced training, professional development and other support for those developing and delivering environmental education

All environmental educators in NSW have access to training, professional development and other support mechanisms in order to improve their practice of environmental education.

Strategy	Action	Responsibility	Performance Indicator
Strategy 5.1: **Promote increased delivery and improved quality of training and professional development and other support mechanisms for environmental educators**	*Action 43:* Providers of professional development programs to design and deliver programs that are based on the needs of environmental educators, provide flexible delivery options and contribute to the outcomes of the plan	**VET providers, universities**	*Strategy 5.1 Indicators:* Number of new professional development programs that are based on the needs of environmental educators
	Action 44: NSW universities to be encouraged to expand the number of places available in environmental education courses and make environmental electives readily accessible to those in other programs	**Universities**	% of these programs that included a written evaluation process
	Action 45: Teacher education providers to ensure the integration of education for sustainability into all pre-service and in-service teacher training in NSW	**Tertiary education sector, professional associations, other professional development providers**	Baseline numbers established and then subsequent annual collection of number of places filled
	Action 46: VET providers to ensure the appropriate training of individuals delivering vocational education and training programs with environmental content	**VET providers**	% of teacher training programs that incorporate environmental awareness reported through the TI
	Action 47: Mentoring and networking to be supported as mechanisms to improve the practice of environmental education. This should include support for: - networks of environmental educators to allow for the sharing of ideas and resources - mentoring by Government organisations and NGOs	**State agencies, NGOs**	

	with a significant role in the delivery of environmental education, for other organisations to improve the quality of their education programs.		
Strategy 5.2: Enhance the capacity of university academics from all disciplines to integrate sustainability issues into the teaching of their discipline	*Action 48:* The NSW Government to invite the Australian Vice-Chancellors' Conference to take a leadership role and collaborate with other important organisations for the purpose of designing a select number of discipline/ professionally-related materials and/or courses on sustainability, to be made available to universities as a means of assisting academics to integrate sustainability issues into their teaching.	**NSW Government through the appropriate Ministers**, Australian Vice-Chancellors' Conference	*Strategy 5.2 Indicator:* Appropriate materials and/ or courses produced and usage rates in university programs
Strategy 5.3: Enhance the capacity of community groups and individual volunteers to deliver environmental education	*Action 49:* Agencies, local government and peak NGOs should consider networking, information and training opportunities to support community groups and individual volunteers who provide environmental education, including Earthworks, Landcare, Waterwatch/Streamwatch, Bushcare and other 'care' groups.	**State agencies, local government, NGOs**	*Strategy 5.3 Indicator:* Strategy developed in EECN and implemented by relevant agencies and reported through the ARP

Outcome 6: Increased research and evaluation of effective environmental education

Environmental education in NSW uses sound research and evaluation in order to deliver effective programs. This Outcome focuses on increasing the knowledge base and achieving continuous improvement through increased levels of research, effective sharing of research findings and ongoing evaluation.

Strategy	Action	Responsibility	Performance Indicator
Strategy 6.1: Promote an increase in high quality research into effective environmental education for a range of specific and priority purposes	*Action 50*: The Council will communicate with the Environmental Trust to request that research on environmental education is established as a Trust funding priority for competitive grants (see also Action 5)	**Council, EPA**	*Strategy 6.1 Indicator*: Priority adopted by Trust No. of Trust applications funded
Strategy 6.2: Promulgate the findings of high quality environmental education research to environmental education practitioners	*Action 51*: The Council will investigate the feasibility of using its website to promote environmental education research findings in user-friendly, practical language.	**Council**	*Strategy 6.2 Indicators*: Feasibility study conducted, website established
	Action 52: The Council will seek opportunities to promote conferences and workshops focusing on research which identifies environmental education techniques that are successful in a range of situations.	**Council**	Conferences and workshops conducted under the auspices of the Council No. of events at which Council is formally represented
Strategy 6.3: Develop and promote reliable methods for evaluating environmental education programs and their outcomes	*Action 53*: The Council will promote the development of protocols and tools to assist providers to review and assess their environmental education programs.	**Council**	*Strategy 6.3 Indicator*: Increase in program evaluations reported through TI
	Action 54: To support Action 53, the development of evaluation techniques should be a priority issue for environmental education research funding through the Environmental Trust grants scheme.	**EPA**	

Action 55: Experienced staff in State agencies, local councils and other organisations that provide substantial environmental education are encouraged to consider mentoring less experienced environmental educators in the development of evaluation plans and processes.	**State agencies, local government, other environmental education providers**

Achievement of Outcomes 1–6 is expected to lay the foundations for achieving Outcome 7 below.

Outcome 7: Increased active and informed participation by NSW people in creating a sustainable future

All members and sectors of the NSW population work together to develop and adopt ecologically sustainable ways of decision-making and living by critically examining current practices and collaborating in learning our way towards sustainable futures.

Strategy	Action	Responsibility	Performance Indicator
Strategy 7.1: Promote comprehensive provision of environmental education which encourages people to consider their role in creating a sustainable future	*Action 56:* Environmental education providers should design and deliver programs that: - engage people in critically examining their decision-making frameworks - encourage and achieve behaviour change - promote lifelong learning.	**Environmental education providers**	*Strategy 7.1 Indicators:* Level of concern for ecological sustainability, and knowledge of environmental issues as measured by relevant items in *Who Cares About the Environment? 2000* Themes in environmental education programs reported in the TI
	Action 57: All relevant organisations should identify and promote 'good practice' examples of programs that encourage sustainable living. Where these case studies are published on the web they should be linked to the Council's website.	**Relevant organisations**	
	Action 58: The Council will champion the adoption of innovative, high quality and effective program designs and methods that promote environmental citizenship.	**Council**	
	Action 59: The Council will work with non-government environmental education providers to explore ways to build their capacity to facilitate public participation and provide advice to government accordingly.	**Council**	

Strategy 7.2: All organisations delivering environmental education promote best practice education for sustainability	*Action 60:* All organisations with environmental and natural resources responsibilities to be encouraged to 'lead by example' and develop and implement environmental management strategies that directly or indirectly educate for sustainability *Action 61:* Environmental education providers are encouraged to review and report on their programs to determine the extent to which they educate for sustainability.	**Organisations with environmental and natural resource responsibilities** **Environmental education providers**	*Strategy 7.2 Indicators:* No. of management plans reported in the ARP

4.

IMPLEMENTATION, MONITORING AND REPORTING

4.1 Implementation

Who is responsible for implementing the plan?

As the daily activities of all of us—both individuals and organisations—affect the health of our environment, so we all have a role to play in putting the plan into action. Each of us is able to make personal lifestyle choices which are sustainable, while organisations can support the vision of the plan by establishing environmental management goals and training staff to meet these goals.

However, despite this broad community role, principal responsibility for implementing the plan rests with:

- those responsible for corporate policy as well as the management of programs and operations which have an impact on the environment
- organisations who deliver environmental and natural resources programs, including those which involve a partnership between State agencies and peak non-government organisations, industry and community groups. In many cases the roles of State agencies in this area are closely tied to NSW environmental and natural resources legislation (see Appendix I).
- providers of environmental education programs and activities, who use education and training, information, advice and communication tools (see Appendix II and III)
- providers of professional development and other support for environmental educators.

Management of the implementation process will fall to those organisations identified in the 'Responsibility' column of the plan in Section 3. Those designated as 'lead organisations' (identified in bold) have responsibility for initiating activities and coordinating planning, the development of partnerships and the contributions of other providers which deliver the Actions.

Other providers identified in Section 3 should contribute strong support to the lead organisation(s) and deliver tasks as agreed during consultation.

The role of the Council in implementing the plan will be to facilitate coordination, research and the provision of information which will assist in the delivery of specific Actions. The Council will also play a lead role in training relevant government and non-government agencies on communicating and implementing the plan.

Implementation time frame and priorities

Realising the plan's Outcomes will be a staged and ongoing process with not all Actions achieved in the three-year timeframe of the plan. The scheduling of particular Actions has been left to the discretion of the lead organisations as they have primary responsibility for planning and coordinating delivery.

The plan strongly emphasises improved coordination to address the State's priority sustainability issues. To this end, a number of specific priority Actions have been identified. They include but are not limited to:

- maximising the value of investment in environmental education by establishing a network of lead agencies to better coordinate programs (see Action 6, p. 20)
- establishing a staged sequence of environmental education plans for statewide priority environmental issues (see Action 7, p. 20)
- education initiatives to address statewide priority environmental issues (see Action 9, pp. 21–29), including:
  - salinity
  - stormwater pollution
  - sustainable energy use and greenhouse gas reduction
  - cleaner production and workplace environmental education
  - water management for the environment, water conservation and water monitoring
  - air quality
- contributing to an understanding of sustainable ways of living though the promotion and further development of the *Our Environment – It's a Living Thing* campaign (see Actions 9.20, p. 29; 20, p. 32; and 29, p. 35)
- developing and enhancing environmental education for school students through implementation of the *Environmental Education Policy for Schools* (DET 2001) (see Action 11, p. 30)
- making information and programs easily accessible through web based links for government and non-government environmental education programs, resources and contacts (see Action 28, p. 34)
- building the capacity of the environmental education community through enhanced training, professional development and other support (see Outcome 5, pp. 38–39).

4.2 Monitoring and reporting

Legislation covering the establishment and functions of the Council outlines requirements for monitoring and reporting on the outcomes of three-year environmental education plans. The *Protection of the Environment Administration Amendment (Environmental Education) Act 1998* requires that the Council:

- set out performance indicators to ensure environmental education contributions meet the specific needs of the community
- monitor progress on the implementation of the environmental education plans against performance indicators set out in the plans
- prepare statements on the performance of environmental education programs in the State for inclusion in reports on the state of the environment.

In line with these requirements, performance indicators have been established against many of the Actions in the plan. These should be viewed by the relevant environmental education providers, especially lead organisations, as a tool for measuring progress in achieving the plan's Outcomes. The Council will use these indicators in evaluating the effectiveness of environmental education in NSW within the framework shown in Figure 2 (page 17).

Mechanisms for reporting against the performance indicators fall into three categories:

- *Annual reports to the Council from State Government agencies.* As part of the annual reporting process, State Government agencies will be required to report on their contribution to delivering the Outcomes of the plan. Where agencies are lead organisations, they will be expected to report on the progress of specific Actions taken.
- *An annual report to the Government from the Council* outlining progress in achieving the plan's Outcomes
- *A triennial report to the Government based on a review of the plan by the Council.* This document will draw information from the annual reports of State agencies and non-government organisations; a triennial inventory of environmental activities and programs in NSW; and other sources of data such as the regular community survey, *Who Cares About the Environment?*, website usage and statistics from dedicated phone services. A summary of this report will be included in the NSW State of the Environment report.

Although the Council has primary responsibility for data collection and reporting, the formal network of lead agencies established to coordinate major environmental education programs (see Action 6, p. 20) will assist with monitoring the effectiveness of these programs and their performance indicators. The network will report to the Council annually.

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CEE 2001, *Environmental Education in NSW: Towards a Three-Year Plan*, NSW Council on Environmental Education, Sydney

DET 2001, *Environmental Education Policy for Schools*, Department of Education and Training, Sydney

DUAP and NSW Fisheries 2000, *NSW North Coast Aquaculture Strategy*, Department of Urban Affairs and Planning, Sydney

DUAP 2000a, *Sustaining the Catchments: A draft regional plan for the drinking water catchments of Sydney and adjacent regional centres*, Department of Urban Affairs and Planning, Sydney

DUAP 2000b, *Sustainable Urban Settlements: Guidelines for regional NSW*, Department of Urban Affairs and Planning, Sydney

Environment Australia 2000, *Environmental Education for a Sustainable Future: National Action Plan*, Canberra.

EPA 2000, *New South Wales State of the Environment 2000*, Environment Protection Authority, Sydney

EPA 2001, *Who Cares About the Environment? 2000*, A Survey of the Environmental Knowledge, Attitudes and Behaviours of People in NSW, Environment Protection Authority, Sydney

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APPENDIX I

SUMMARY OF ENVIRONMENT, NATURAL RESOURCE AND EDUCATION LEGISLATION

NSW legislation

Aboriginal Land Rights Act 1983

Animal Research Act 1985

Bicentennial Park Trust Act 1987

Biological Control Act 1985

Board of Adult and Community Education Act 1990

Board of Vocational Education and Training Act 1994

Catchment Management Act 1989

Centennial Park and Moore Park Trust Act 1983

Coal Mines Regulation Act 1982

Coastal Protection Act 1979

Commons Management Act 1989

Community Land Development Act 1989

Community Land Management Act 1989

Community Protection Act 1994

Contaminated Land Management Act 1997

Crown Lands Act 1989

Dangerous Goods Act 1975

Darling Harbour Authority Act 1984

Drainage Act 1939

Education Act 1990

Electricity (Pacific Power) Act 1950

Electricity Safety Act 1945

Electricity Supply Act 1995

Electricity Transmission Authority Act 1994

Energy Administration Act 1987

Energy Services Corporation Act 1995

Environmentally Hazardous Chemicals Act 1985

Environmental Planning and Assessment Act 1979

Environmental Trust Act 1988

Exhibited Animals Protection Act 1986

Exotic Diseases of Animals Act 1991

Fertilizers Act 1985

Fisheries Management Act 1994

Fish Marketing Act 1994

Flouridation of Public Water Supplies Act 1957

Forestry Act 1916

Forestry and National Park Estate Act 1998

Forestry Restructuring and Nature Conservation Act 1995

Forestry Revocation and National Parks Reservation Act 1983

Forestry Revocation and National Parks Reservation Act 1984

Forests and Flora Reserves Revocation Act 1996

Forests and Reserves Revocation Act 1995

Forestry (State Forest Revocation) Act 1978

Freedom of Information Act 1989

Gas Supply Act 1996

Heritage Act 1977

Higher Education Act 1988

Historic Houses Act 1980

Hunter Water Board (Corporatisation) Act 1991

Inclosed Lands Protection Act 1901

Irrigation Act 1912

Irrigation Corporations Act 1994

Justices Act 1902

Land and Environment Court Act 1979

Local Government Act 1993

Lord Howe Island Act 1953

Marine Parks Act 1997

Marine Pollution Act 1987

Maritime Services Act 1935

Mines Rescue Act 1994

Mining Act 1992

Mutual Recognition (New South Wales) Act 1992

National Environment Protection Council (New South Wales) Act 1995

National Parks and Wildlife Act 1974

National Trust of Australia (New South Wales) Act 1990

Native Title (New South Wales) Act 1994

Native Vegetation Conservation Act 1997

Noxious Weeds Act 1993

Occupational Health and Safety Act 1983

Olympic Coordination Authority Act 1995

Ozone Protection Act 1989

Pesticides Act 1999

Petroleum (Onshore) Act 1991

Petroleum (Submerged Lands) Act 1982

Pipelines Act 1967

Plantations and Reafforestation Act 2000

Plant Diseases Act 1924

Plant Diseases Amendment Act 2000

Ports Corporatisation and Waterways Management Act 1995

Prevention of Cruelty to Animals Act 1979

Protection of the Environment Administration Act 1991

Protection of the Environment Operations Act 1997

Public Health Act 1991

Radiation Control Act 1990

Recreation Vehicles Act 1983

Rivers and Foreshores Improvement Act 1948

Road and Rail Transport (Dangerous Goods) Act 1997

Roads Act 1993

Royal Botanic Gardens and Domain Trust Act 1980

Rural Fires Act 1997

Rural Lands Protection Act 1989

Soil Conservation Act 1938

State Emergency and Rescue Management Act 1989

State Environmental Planning (Permissible Mining) Act 1996

Stock (Chemical Residues) Act 1975

Stock Diseases Act 1923

Stock Medicines Act 1989

Subordinate Legislation Act 1989

Summary Offences Act 1988

Supreme Court Act 1970

Sustainable Energy Development Act 1995

Sydney Cove Redevelopment Authority Act 1968

Sydney Harbour Foreshore Authority Act 1998

Sydney Organising Committee for the Olympic Games Act 1993

Sydney Water Act 1994

Technical and Further Education Commission Act 1990

Threatened Species Conservation Act 1995

Timber Industry (Interim Protection) Act 1992

Traffic Act 1909

Transport Administration Amendment (Rail Corporatisation and Restructuring) Act 1996

Unhealthy Building Land Act 1990

Uranium Mining and Nuclear Facilities (Prohibitions) Act 1986

Vocational Education and Training Accreditation Act 1990

Waste Avoidance and Resource Recovery Act 2001

Water Act 1912

Water Administration Act 1986

Water Amendment (Charges) Act 1996

Water Management Act 2000

Water Supply Authorities Act 1987

Western Lands Act 1901

Wild Dog Destruction Act 1921

Wilderness Act 1987

Zoological Parks Board Act 1973

National Legislation

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

Agricultural and Veterinary Chemicals Act 1994

Australian Heritage Commission Act 1975

Australian National Training Authority Act 1992

Biological Control Act 1984

Environment Protection and Biodiversity Conservation Act 1999

Environmental Reform (Consequential Provisions) Act 1999

Fisheries Management Act 1952

Hazardous Waste (Regulations of Exports and Imports) Act 1989

Higher Education Funding Act 1998

Murray-Darling Basin Act 1993

National Environment Protection Council Act 1994

National Environment Protection Measures (Implementation) Act 1988

Natural Heritage Trust of Australia Act 1997

Natural Resource Management (Financial Assistance Act) 1992

Ozone Protection Act 1989

Ozone Protection (Licence Fees - Imports) Act 1995

Ozone Protection (Licence Fees - Manufacture) Act 1995

Product Stewardship (Oil) Act 2000

Renewable Energy (Electricity) Act 2000

Sydney Harbour Federation Trust Act 2001

Vocational Education and Training Funding Act 1992

Wildlife Protection (Regulation of Exports and Imports) Act 1982

Sources

Agriculture, Fisheries and Forestry Australia website, www.affa.gov.au, October 2001

Australian Legal Information Institute website, www.austlii.edu.au, October 2001

Department of Education Training and Youth Affairs website, www.detya.gov.au, October 2001

Environment Australia website, www.ea.gov.au, October 2001

NSW Environment Protection Authority website, www.epa.nsw.gov.au, October 2001

Appendix II

ENVIRONMENTAL EDUCATION PROVIDERS

Formal education providers

Pre-school: childcare centres, family day care, pre-school kindergartens

School: government and non government primary schools, secondary schools

Post-school: universities, TAFE, Registered Training Organisations, colleges.

Non-formal education providers

Industry training/professional development: professional associations, provate providers, on-the-job training

Government agencies: local, state and federal

Community-based adult education providers: neighbourhood centres, evening and community colleges, communiy adult education centres

Unions: ACTU and individual unions, particularly those associated with building and development, agriculture, noxious industry waste, education, environment and health

Environment interest groups and organisations: peak national and state bodies, local issues groups, nature conservation and field naturalist groups, outdoor sporting and recreation voluntary organisations.

Other community organisations: youth groups, church groups, service organisations

Source: EPA 1996, *A New Approach to Environmental Education in NSW*, A NSW Government Green Paper, Environment Protection Authority, Sydney

APPENDIX III

ENVIRONMENTAL EDUCATION PRODUCTS, SERVICES AND PROGRAMS

Information products and services

- Publications (pamphlets, brochures and posters)
- Telephone information services
- Counter/shopfront services
- Libraries
- Internet sites
- On-line databases
- Basic research programs
- Displays, exhibitions, lectures
- Careers days
- Interpretation programs
- Visitor services
- Providing technical advice
- State of the environment reporting
- Promotional products

Public communication programs

- Media liaison (press releases and interviews)
- Advertising/marketing
- Public education campaigns
- Public relations
- Documentary programs
- Green product labelling
- Environmental performances (music, dance, drama and debates)

Community development programs

- Public participation mechanisms and programs
- Casework/facilitating community problem solving
- Community grants/funding programs
- Lobbying, advocacy, capacity building and political activity
- Developing educational infrastructure
- Developing environmental management systems
- Discussion groups and contact networks
- Extension programs
- Awareness-raising programs

Training, development and site-specific programs

- Skills development courses
- In-service/pre-service/career development courses
- Field days
- Experiental learning programs
- Conducting environmental audits
- On-the-job training
- Work experience and orientation programs
- Sponsorship and work exchange programs
- Occupational health and safety programs

Comprehensive personal education programs

School curriculum

Vocational education and training curriculum

University curriculum

Personal development courses

Action research programs

Outdoor and leisure education

Short courses/continuing education

Community education courses

Source: EPA 1996, *A New Approach to Environmental Education in NSW*, A NSW Government Green Paper

APPENDIX IV

MEMBERS OF NSW COUNCIL ON ENVIRONMENTAL EDUCATION

Members of the council responsible for developing the plan are listed below. Current members and their contact details are listed on the Council on Environmental Education website at www.epa.nsw.gov.au/cee.

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APPENDIX V

NSW GOVERNMENT POLICIES ON ENVIRONMENT AND NATURAL RESOURCES

The NSW Government has pursued a strong agenda of environmental and natural resources reform. These reforms are articulated through a series of policies, strategies and statements that have been used to inform the strategic direction of the NSW Environmental Education Plan 2002–05. Key publications as at November 2001 include:

- *Action for Air: The NSW Government's 25-year Air Quality Management Plan*
  NSW Government 1998
  http://www.epa.nsw.gov.au/download/actionair.pdf
- *Action for Bikes: Bikeplan 2010*
  Roads and Traffic Authority 1999
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- *Action for Transport 2010: An Integrated Transport Plan for NSW*
  Department of Transport 1998
  http://www.transport.nsw.gov.au/act2010/pp1nsw.pdf
- *Draft Native Vegetation Conservation Strategy*
  Native Vegetation Advisory Council 2000
  http://www.dlwc.nsw.gov.au/care/veg/conserv_strategy/index.html
- *NSW Action for Greenhouse*
  NSW Government
  http://www.cabinet.nsw.gov.au/publics.html
- *NSW Agriculture and the Environment: Providing Profitable Solutions to Environmental Problems*
  NSW Agriculture 2001
  http://www.agric.nsw.gov.au/reader/6449/orange
- *NSW Biodiversity Strategy*
  NSW National Parks and Wildlife Service 1999
  http://www.npws.nsw.gov.au/wildlife/biodiversity.html
- *NSW Coastal Policy 1997: A Sustainable Future for the NSW Coast*
  NSW Government
  http://www.coastalcouncil.nsw.gov.au/factsheet.htm
- *NSW Government Energy Management Policy*
  Department of Energy 1998
  http://www.doe.nsw.gov.au/environment/Gemp/GEMPdoc.pdf
- *NSW Pesticides Act 1999*
  The Act includes a training regulation that will require the compulsory training of commercial users of agricultural and veterinary chemicals.
  http://www.epa.nsw.gov.au/pesticides/

- *NSW Water Conservation Strategy*
  Department of Land and Water Conservation 2000
  http://www.dlwc.nsw.gov.au/care/water/conserv_strategy/wcs.pdf
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  NSW Agriculture
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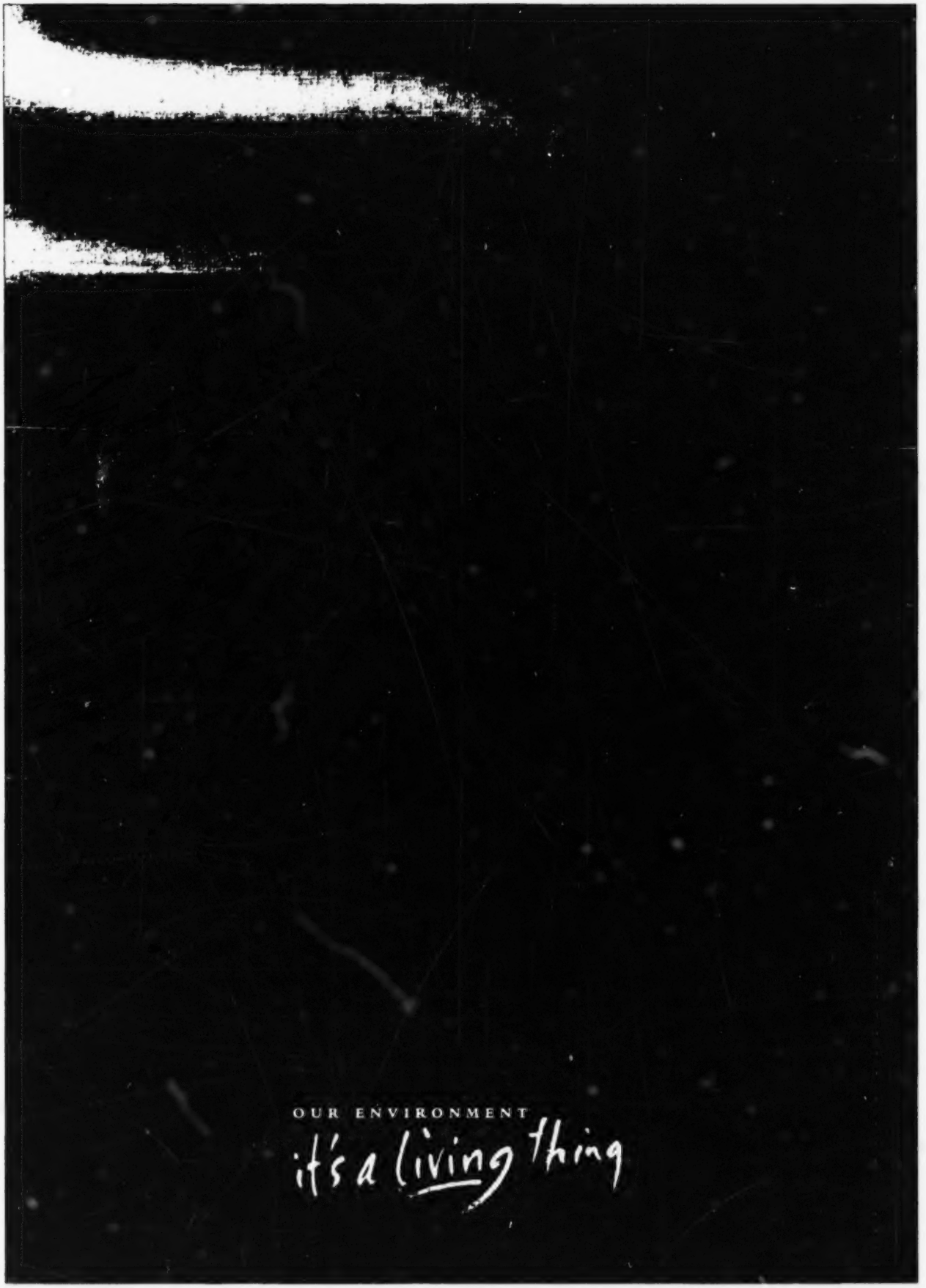
  http://www.agric.nsw.gov.au/reader/3201
- *Shaping our Cities*
  Department of Urban Affairs and Planning 1999
  http://www.duap.nsw.gov.au/plansforaction/metro.html
- *Taking on the Challenge: NSW Salinity Strategy*
  NSW Government 2000
  http://www.dlwc.nsw.gov.au/care/salinity/index.html#Strategy
- *Waste Reduction and Purchasing Policy*
  Environment Protection Authority 1997
  http://www.premiers.nsw.gov.au/pubs_dload_part4/prem_circs_memos/prem_memos/1997/1997%20attachments/m97-20a.pdf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